

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



# Developments in Methods of Corn Borer Control

A brief progress report, including announcement of conference, to those who raise corn in areas infested by the European corn borer

By L. H. WORTHLEY, *Administrator of Corn Borer Control, Plant Quarantine and Control Administration, United States Department of Agriculture*

WASHINGTON, D. C., September 1, 1930.

Farmers and others who raise corn within the areas infested by the corn borer should have the privilege of being kept well informed of progress in practical ways and means of controlling the insect. Research in the problem is being carried on by a number of agencies, both Federal and State. Publications giving results obtained by these agencies will be issued from time to time; but in case any farmer has failed to receive information of particular value to him, it is hoped that a brief summary of this kind, giving references, will prove valuable.

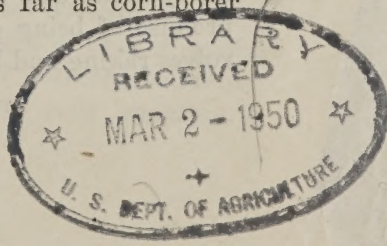
Excepting what may be accomplished by the late planting of corn, mechanical methods of control constitute, as yet, the only practical means which can be applied generally and in a large way by corn growers. Hence this pamphlet is confined to a brief discussion of tools and machines especially designed or adapted to corn-borer control.

For general information on methods of control, secure Farmers' Bulletin No. 1548, issued by the United States Department of Agriculture.

## HAND CORN CUTTER

The new hand corn cutter for cutting off cornstalks at the ground surface is illustrated in Miscellaneous Publication No. 56, issued by the Department of Agriculture. These cutters are not yet manufactured and sold commercially, but can be made by any blacksmith if he will follow the directions and layout given in the publication.

If you engage in hand cutting, perhaps this device will be a material aid. When stalks are cut off at the ground surface the problem of treating the stubble is eliminated as far as corn-borer control is concerned.





## STALK SHAVER

An improved stalk shaver has been developed to cut off stalks at the ground surface. This can be made at home by following the directions given in Miscellaneous Publication No. 69, by the Department of Agriculture.

The stalk shaver is used preparatory to raking and burning stalks, although it can be used in other stalk-handling processes. It cuts two rows at once; it is pulled by one or two horses according to conditions; or two shavers may be used together, with three horses or a light tractor, in cutting four rows at once. This is a fast, cheap, practical means of cutting stalks loose so that a cleaner job of raking can be accomplished.

Farmers are urged to give attention to this device as an important weapon in the corn-borer battle in many areas. The device originated with farmers; the present implement simply embodies some easily made improvements which have proved their worth through extensive experimental work.

## LOW-CUTTING ATTACHMENTS FOR CORN BINDERS

Miscellaneous Publication No. 56, referred to above, also gives directions on how to make low-cutting attachments for four popular makes of corn binders now on farms. Some concerns are making attachments for binders of their manufacture which are already in use; they are also in position to furnish low-cutting attachments for their new corn binders now offered for sale. Get in touch with your dealer, who in turn should be willing to secure for you the latest information on the availability of these devices.

There is indication that considerable attention may be given low-cutting corn binders even in some areas where corn binders are not now common. Sometimes corn is hand cut; then the stubble simply is disked preparatory to sowing small grain. In such case, unless the stalks are cut at the ground surface, there is yet no cheap, practical, easy way of handling such stubble satisfactorily from the standpoint of corn-borer control.

## RAKES

Manufacturers are marketing special, close-toothed, sulky dump rakes which aid in the corn-borer control under some conditions. But the most satisfactory rake for cleaner raking in heavy stalk growths has proven to be a 4-bar side-delivery rake developed especially for corn-borer work. This rake carries an extra number of heavy teeth, and is equipped with special spring devices. It gives promise of being of great value where good control procedure involves raking and burning stalks.

This rake is not yet in production; but experimental work has progressed to the point where it is hoped manufacturers will be willing to market it soon.

### COMBINATION CORN HARVESTER

In 1925 the first layout of a combination corn harvester was made by an Ohio farmer. This machine was desired by this man to either pick corn or to cut up stalks in the field ready for ensiling. Agricultural engineers recognized at once the possibilities of this machine, if equipped with low-cutting attachment, for areas where corn is hand or machine picked and the stalks disked preparatory to planting small grain. With this device the corn could be picked and the stalks cut into fine bits; hence the corn borer would be taken care of and the corn harvested by a single field operation.

A machine of this kind was built by one manufacturer and successfully operated in 1926. Further development has taken place since that time, but the implement is not on the market. It is believed that this device holds considerable promise for areas where large acreages of grain corn are raised and where it is not the custom to plow for subsequent small-grain sowing. Should a demand for a machine of this type develop, manufacturers probably could swing into production of it quickly.

### LOW-CUTTING ATTACHMENTS FOR FIELD SILAGE HARVESTERS

Field silage harvesters equipped with low-cutting attachments have been used very successfully for destroying sweet-corn stalks immediately following harvest of the ears. Such devices can be used for the harvest of silage corn.

### ACKNOWLEDGMENTS

All of the above devices have been originated, improved upon, perfected, or tested by the Division of Agricultural Engineering, Bureau of Public Roads, in cooperation with the Plant Quarantine and Control Administration, United States Department of Agriculture. Throughout the work these agencies have enjoyed the loyal support and able cooperation of several implement companies to whom credit is given for their contributions of time, skill, and materials.

### PLOWS AND PLOWING

It is not to be inferred from the foregoing that successful control of the corn borer depends solely upon the purchase of new or special equipment. Successful control often must start with the better use of implements now on farms. For this reason your attention is



called to Bulletin No. 80, entitled "Plows and Good Plowing with Special Reference to Corn-Borer Control," issued by the extension service, college of agriculture, Ohio State University, Columbus, Ohio.

This bulletin covers various phases of all of the common types of plows used in the area of infestation about Lake Erie. It is one of the most comprehensive and best organized works of its kind recently printed. If you plow for corn-borer control, secure one of these bulletins.

#### ANNOUNCEMENT OF 1930 CONFERENCE

On September 24 and 25 there will be held at Toledo, Ohio, a conference of farmers, public officials, scientists, manufacturers, and others interested in the great problem of controlling the European corn borer. There will be field trips, a business meeting, short talks, exhibits, and demonstrations of the latest in implements and machinery.

The public is cordially invited. Headquarters will be 615 Front Street, Toledo, Ohio.